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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/557,775	04/25/2000	Tetsuya Ashida	PM 268172	9116

909 7590 03/07/2002

PILLSBURY WINTHROP LLP
1600 TYSONS BOULEVARD
MCLEAN, VA 22102

EXAMINER

NGUYEN, KIMBERLY T

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 03/07/2002

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/557,775

Applicant(s)

ASHIDA ET AL.

Examiner

Kimberly T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 3,5 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-12 and 14-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Response to Amendment

This action is in response to the amendment submitted on December 21, 2001.

Examiner acknowledges new claims 15 and 16 and the cancellation of claims 3, 5, and 13 and acknowledges the receipt of the Product Bulletin.

Claim Rejections - 35 USC § 112

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

Due to Applicants' amendments, the rejections of claims 1-2, 4-5, and 12 based on 35 USC 112, second paragraph are withdrawn.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is unclear as to the process included in the product claim. It is not understood why "prepared by a gas phase process" is included in these claims. Additionally, this method step seems to be part of a process, although no process is claimed.

Claim Rejections - 35 USC § 103

Claims 1-2, 4, 6-12, and 14 are rejected under 35 U.S.C 103(a) as being unpatentable over Ali et al., U.S. Pat. No. 5,589,269 in view of Santo et al., U.S. Pat. No. 5,965,252 for the reasons set forth in the previous Office Action, mailed on October 11, 2001.

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Claims 1 and 10-12 are rejected under 35 U.S.C 103(a) as being unpatentable over Ali et al., U.S. Pat. No. 5,589,269 in view of Santo et al., U.S. Pat. No. 5,965,252 for the reasons set forth in the previous Office Action, mailed on October 11, 2001.

Claims 1 and 15-16 are rejected under 35 U.S.C 103(a) as being unpatentable over Ali et al., U.S. Pat. No. 5,589,269 in view of Kasahara et al., U.S. Pat. No. 6,165,606.

Ali shows an ink receptive sheet comprising a substrate and at least one ink-receptive layer which comprises silica (column 19, lines 58-63), aluminum chloride (polyaluminum hydroxychloride) (column 13, lines 13-19), a zirconium compound such as zirconium acetate (column 13, lines 13-34), and a hydrophilic binder such as polyvinyl alcohol (column 19, lines 39-41 and column 20, lines 44-47). Ali also shows that that substrate is a cellulose ester or polyolefin (claim 7) and may have a film backing of polyolefin (water resistant support) (column 20, lines 66-67 to column 21, lines 1-7). Ali further shows that the ink-receptive layer comprises a crosslinkable hydrophilic polymeric material (hydrophilic binder) and a crosslinking agent (column 10, lines 18-52 and column 4, lines 2-64).

Ali does not show that the cross-linking agent is boric acid or borate as in instant claim 16.

Kasahara shows a plastic film support (water resistant support) (column 1, lines 33-43) and an ink jet recording layer comprising a hydrophilic binder of polyvinyl alcohol (column 13, lines 23-43), fine inorganic particles of gas-phase produced synthetic silica (column 7, lines 47-62), and a cross-linking agent of boric acid (column 15, lines 5-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use boric acid as the cross-linking agent with the hydrophilic binder of polyvinyl alcohol since it is known that

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such an agent is used with polyvinyl alcohol to improve the film forming properties of the void-containing layer, the water-resisting properties, and the film strength after printing.

Ali does not show that the silica is prepared by a gas phase process. However, this is a product-by-process claim. “[E]ven though product-by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 227 USPQ 964, 966. Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983). *See* MPEP §2113.

Response to Arguments

Applicant's arguments filed December 21, 2001 have been fully considered but they are not persuasive.

On pages 5-9, Applicants argue that Ali shows silica, but that the silica is not synthetic, does not have the same particle size as Applicants' instant invention, and is not used for making voids in the ink-receptive layer. Examiner finds this argument unpersuasive. Ali shows that silica is used in the ink-receptive layer to improve handling. Nowhere in the reference does Ali show that synthetic silica can *not* be used. Further, the term silica would encompass various sorts of silica, such as synthetic silica.

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On page 9, Applicants argue that Santo is irrelevant because it does not show the water-soluble polyvalent metallic compound. Examiner disagrees. Santo is used *in combination with* Ali to show that it would be obvious to use, in an ink-receptive layer, a plasticizer of urea resins and one of the compounds listed in instant claim 12 such as phosphite. Thus, Santo is not irrelevant to the presently claimed invention.

Conclusion

APPLICANT'S AMENDMENT necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Nguyen whose telephone number is (703) 308-8176. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (703) 308-0449. The fax phone numbers for the

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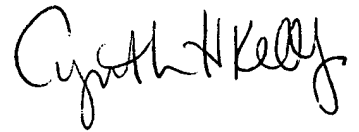
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organization where this application or proceeding is assigned are (703) 872-9310 for before final communications and (703) 872-9311 for after final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

A handwritten signature in black ink, appearing to read "Cynthia H. Kelly", written in a cursive style.